AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-25. (canceled).

26. (previously presented): A method for modifying a protein or a peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is from a microorganism belonging to the genus *Chryseobacterium.*

27. (previously presented) A method for modifying a protein or a peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence encoded by the nucleotide sequence set forth in SEQ ID NO: 5.

28. (previously presented) A method for modifying a protein or a peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6.

29. (Currently Amended) A method for modifying a protein or a peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a recombinant polypeptide which comprises an amino acid sequence encoded by a nucleotide sequence selected from the group consisting of:

(a) a polynucleotide that encodes a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6,

(b) a polynucleotide which comprises a nucleotide sequence set forth in SEQ ID NO: 5,

(c) a polynucleotide which hybridizes with any one of the aforementioned polynucleotides (a) and (b) under stringent conditions, wherein the stringent conditions comprise incubation at 50-65°C for at least four hours in a solution comprising 6 x SSC, and

(d) a polynucleotide which has a homology of 80% or more with any one of the aforementioned polynucleotides (a) and (b).

30. (previously presented) A method for improving functionality of a plant or animal protein and/or peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is from a microorganism belonging to the genus *Chryseobacterium*.

31. (previously presented) A method for improving functionality of a plant or animal protein and/or peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence encoded by the nucleotide sequence set forth in SEQ ID NO: 5.

32. (previously presented) A method for improving functionality of a plant or animal protein and/or peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or

cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6.

33. (currently amended) A method for improving functionality of a plant or animal protein and/or peptide, which comprises reacting an enzyme with the protein or peptide, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a recombinant polypeptide which comprises an amino acid sequence encoded by a nucleotide sequence selected from the group consisting of:

(a) a polynucleotide that encodes a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6,

(b) a polynucleotide which comprises a nucleotide sequence set forth in SEQ ID NO: 5,

(c) a polynucleotide which hybridizes with any one of the aforementioned polynucleotides (a) and (b) under stringent conditions, <u>wherein the stringent conditions comprise incubation at 50-65°C for at least four hours in a solution comprising 6 x SSC,</u> and

(d) a polynucleotide which has a homology of 80% or more with any one of the aforementioned polynucleotides (a) and (b).

34. (previously presented): A method for improving functionality of food containing a plant or animal protein and/or peptide, which comprises allowing an enzyme to react with the food, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is from a microorganism belonging to the genus *Chryseobacterium.*

35. (previously presented) A method for improving functionality of food containing a plant or animal protein and/or peptide, which comprises allowing an enzyme to react with the food, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence encoded by the nucleotide sequence set forth in SEQ ID NO: 5.

36. (previously presented) A method for improving functionality of food containing a plant or animal protein and/or peptide, which comprises allowing an enzyme to react with the food, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide, and wherein the enzyme is a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6.

37. (currently amended) A method for improving functionality of food containing a plant or animal protein and/or peptide, which comprises allowing an enzyme to react with the food, wherein the enzyme has activity to deamidate amido groups in the protein or the peptide by directly acting upon the groups without causing severing of peptide bonds in the protein or peptide, or cross-linking of the protein or peptide and wherein the enzyme is a recombinant polypeptide which comprises an amino acid sequence encoded by a nucleotide sequence selected from the group consisting of:

(a) a polynucleotide that encodes a polypeptide which comprises the amino acid sequence set forth in SEQ ID NO: 6,

(b) a polynucleotide which comprises a nucleotide sequence set forth in SEQ ID NO: 5,

(c) a polynucleotide which hybridizes with any one of the aforementioned polynucleotides (a) and (b) under stringent conditions, <u>wherein the stringent conditions comprise incubation at 50-65°C for at least four hours in a solution comprising 6 x SSC,</u> and

(d) a polynucleotide which has a homology of 80% or more with any one of the aforementioned polynucleotides (a) and (b).